

REMARKS

I. Preliminary Remarks

Applicant confirms the previous election of Group I, claims 1-18, 26, 27 and 29.

Currently pending claims 1-18 as they would appear after entry of this amendment are set forth in Exhibit A hereto. These claims, which relate to polynucleotides encoding human chitinase enzyme, vectors and host cells comprising such polynucleotides, and methods for using such host cells to produce human chitinase, are based on Applicant's isolation of DNA encoding human chitinase. Two exemplary embodiments are the DNA inserts contained in plasmids MO-218 and MO-13B (SEQ ID NOS:1 and 3).

Applicant has canceled claims 26, 27 and 29, which related to polynucleotides encoding a specific fragment and a specific analog of human chitinase.

II. The Outstanding Rejections

Claims 13-18 were rejected under 35 U.S.C. §112, first paragraph, as assertedly lacking enablement for any nucleic acid which will hybridize under stringent conditions to a nucleic acid encoding the amino acid sequence of SEQ ID NOS:2 and 4.

Claims 1-6, 13-18, 26 and 27 were rejected under §102(a) and claims 7-12 and 29 were rejected under §103(a) as unpatentable over Boots *et al.*, *J. Biol. Chem.*, 270:26252-26256 (1995) (hereafter "Boots").

III. Patentability Arguments

A. The Rejection Under 35 U.S.C. §112, First Paragraph

The rejection of claims 13-18 under 35 U.S.C. §112, first paragraph, may properly be withdrawn in light of the amendment of claim 13 to recite a "human" polynucleotide. No undue experimentation is required, for example, to screen a human cDNA library using any suitable portion of the protein coding region of SEQ ID NO:1 and to thereby obtain any number of human polynucleotides encoding human chitinase. In fact, Applicant has

exemplified isolation of two different human polynucleotides encoding human chitinase (the DNA inserts of plasmids MO-218 and MO-13B) in Example 1 of the specification.

B. The Rejection Under 35 U.S.C. §§102 and 103(a)

The rejection of claims 1-6, 13-18, 26 and 27 under §102(a) and claims 7-12 and 29 under §103(a) as unpatentable over Boots may properly be withdrawn in view of the "Declaration of Patrick Gray Under 37 C.F.R. §1.131" attached hereto as Exhibit B, which shows that Applicant isolated the human chitinase gene and completed the invention before the November, 1995 publication date of the Boots article. Boots is therefore removed as a reference against the claims of this application.

CONCLUSION

In light of the foregoing amendments and remarks, it is believed that claims 1-18 are now in condition for allowance, and early notice thereof is solicited.

Respectfully submitted,

MARSHALL, O'TOOLE, GERSTEIN,
MURRAY & BORUN

BY:



Li-Hsien Rin-Laures, M.D.
Registration No. 33,547
6300 Sears Tower
233 S. Wacker Drive
Chicago, IL 60606-6402
(312) 474-6300

December 8, 1997